

Including Marine and Coastal Priorities in the 2015 SWAP

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Maine Dept. of Marine Resources

Maine Wildlife Action Plan Meeting

September 30, 2014



Wildlife Action Plan Snapshot

“Maine's Wildlife Action Plan addresses the state's full array of wildlife and their habitats including vertebrates and invertebrates in aquatic (freshwater, estuarine, and marine) and terrestrial habitats.”

2005 Maine's Species of Greatest Conservation Need

Marine	13
Diadromous Fish [5]	
Whales [5]	
Turtles [3]	

Mollusks?

Marine Fishes?

Invertebrates?

Sharks/Skates?

Criteria Used to Identify SGCN for 2015

- * Priority 1:
 - * Risk of Extirpation
 - * Recent sig. declines
 - * Endemic
 - * Regional priority



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- * Endemic
- * Regional priority



- * Priority 2:

- * Global vulnerability
- * State special concern
- * Climate change vulnerability
- * Historical



Criteria Used to Identify SGCN for 2015

- * Priority 1:

- * Risk of Extirpation
- * Recent sig. declines
- * Endemic
- * Regional priority

- * Priority 2:

- * Global vulnerability
- * State special concern
- * Climate change vulnerability
- * Historical

- * Priority 3:

- * Understudied taxa



Additional Species Identified by IFW for 2015

	Mammals	Reptiles	Molluscs	Finfish	Sharks, etc.	Inverts
Priority 1	N. A. Right Whale			Shortnose sturgeon		
				Atl. sturgeon		
				Atl. salmon		
Priority 2	Sei whale	Kemps Riddle tur.		Am. Eel	Hammerhead	
	Blue whale	Green tur.		Alewife	Thresher	
	Finback whale	Leatherback tur.		Blueback herring	Mako	
	Humpback whale	Loggerhead tur.		Rainbow smelt	Porbeagle	
	Sperm whale			Striped bass	Thorny skate	
	H. Porpoise			Tautog	Barndoor skate	
					Winter skate	
					Smooth skate	
					Spiny dogfish	

DMR and Maine Coastal Program Suggested Revisions



- * Review of 2015 proposed list by DMR SWAP representative

DMR and Maine Coastal Program Suggested Revisions



- * Review of 2015 proposed list by DMR SWAP representative
- * Revisions suggested to DMR lead scientists
 - * Mammals/turtles
 - * Invertebrates
 - * Pelagic and groundfish scientists

DMR and Maine Coastal Program Suggested Revisions



- * Review of 2015 proposed list by DMR SWAP representative
- * Revisions suggested to DMR lead scientists
 - * Mammals/turtles
 - * Invertebrates
 - * Pelagic and groundfish scientists
- * DMR, MCP, and IFW staff met to discuss the SWAP goals, list revisions

DMR and Maine Coastal Program Suggested Revisions



- * Review of 2015 proposed list by DMR SWAP representative
- * Revisions suggested to DMR lead scientists
 - * Mammals/turtles
 - * Invertebrates
 - * Pelagic and groundfish scientists
- * DMR, MCP, and IFW staff met to discuss the SWAP goals, list revisions
- * Final list was submitted to IFW in September

DMR and Maine Coastal Program Suggested Revisions

	Mammals
Priority 1	N. A. Right Whale
	Humpback
Priority 2	Sei whale
	Blue whale
	Finback whale
	Sperm whale
	H. Porpoise
	Humpback whale
Priority 3	



DMR and Maine Coastal Program Suggested Revisions

	Mammals	Reptiles
Priority 1	N. A. Right Whale	Leatherback tur.
	Humpback	
Priority 2	Sei whale	Kemps Ridley tur.
	Blue whale	Green tur.
	Finback whale	Loggerhead tur.
	Sperm whale	Leatherback tur.
	H. Porpoise	
	Humpback whale	
Priority 3		

DMR and Maine Coastal Program Suggested Revisions

	Mammals	Reptiles	Molluscs
Priority 1	N. A. Right Whale	Leatherback tur.	
	Humpback		
Priority 2	Sei whale	Kemps Ridley tur.	Native Am. oyster
	Blue whale	Green tur.	
	Finback whale	Loggerhead tur.	
	Sperm whale	Leatherback tur.	
	H. Porpoise		
	Humpback whale		
Priority 3			Soft shell clam
			Hard shell clam

DMR and Maine Coastal Program Suggested Revisions

	Mammals	Reptiles	Molluscs	Finfish
Priority 1	N. A. Right Whale	Leatherback tur.		Shortnose sturgeon
	Humpback			Atl. sturgeon
				Atl. salmon
				Blueback herring
				Rainbow smelt
				Am. Eel
Priority 2	Sei whale	Kemps Ridley tur.	Native Am. oyster	Alewife
	Blue whale	Green tur.		Striped bass
	Finback whale	Loggerhead tur.		Am. shad
	Sperm whale	Leatherback tur.		Wolffish
	H. Porpoise			Cusk
	Humpback whale			Cod
				Blueback herring
				Rainbow smelt
				Am. Eel
				Tautog
Priority 3			Soft shell clam	
			Hard shell clam	

DMR and Maine Coastal Program Suggested Revisions

	Mammals	Reptiles	Molluscs	Finfish	Sharks, etc.
Priority 1	N. A. Right Whale	Leatherback tur.		Shortnose sturgeon	
	Humpback			Atl. sturgeon	
				Atl. salmon	
				Blueback herring	
				Rainbow smelt	
				Am. Eel	
Priority 2	Sei whale	Kemps Ridley tur.	Native Am. oyster	Alewife	Hammerhead
	Blue whale	Green tur.		Striped bass	Thresher
	Finback whale	Loggerhead tur.		Am. shad	Mako
	Sperm whale	Leatherback tur.		Wolffish	Porbeagle
	H. Porpoise			Cusk	Thorny skate
	Humpback whale			Cod	Barndoor skate
				Blueback herring	Winter skate
				Rainbow smelt	Smooth skate
				Am. Eel	Spiny dogfish
				Tautog	
Priority 3			Soft shell clam		
			Hard shell clam		

DMR and Maine Coastal Program Suggested Revisions

	Mammals	Reptiles	Molluscs	Finfish	Sharks, etc.	Inverts
Priority 1	N. A. Right Whale	Leatherback tur.		Shortnose sturgeon		Northern shrimp
	Humpback			Atl. sturgeon		Horseshoe crab
				Atl. salmon		
				Blueback herring		
				Rainbow smelt		
				Am. Eel		
Priority 2	Sei whale	Kemps Ridley tur.	Native Am. oyster	Alewife	Hammerhead	Sea stars
	Blue whale	Green tur.		Striped bass	Thresher	Sea cucumber
	Finback whale	Loggerhead tur.		Am. shad	Mako	Sea urchin
	Sperm whale	Leatherback tur.		Wolffish	Porbeagle	
	H. Porpoise			Cusk	Thorny skate	
	Humpback whale			Cod	Barndoor skate	
				Blueback herring	Winter skate	
				Rainbow smelt	Smooth skate	
				Am. Eel	Spiny dogfish	
				Tautog		
Priority 3			Soft shell clam			
			Hard shell clam			

Marine SGCN

- * Do revisions seem appropriate?
- * Other species to include?
 - * Blue mussels
 - * Scallops
 - * Remove spiny dogfish?
- * Do species fall into the right priority classifications?

Suggested revisions have been given to IFW and other professionals to review

Coastal and Marine Habitat



Coastal & Marine Habitat Classifications

2005 Coastal Habitat Types

COASTAL Habitat	Description
Marine Open Water	Watered marine areas.
Estuaries and Bays	Subtidal estuarine channels and tidal aquatic beds.
Rocky Coastline and Islands	Areas adjacent to water where ledge, gravel, rock, boulders, bedrock, or stones predominate.
Unconsolidated Shore (beaches and mudflats)	Dunes, flats, beaches with vegetation, sand, mud, or gravel.
Estuarine Emergent Saltmarsh	Estuarine/intertidal waters with emergent, herbaceous (non-woody) vegetation.

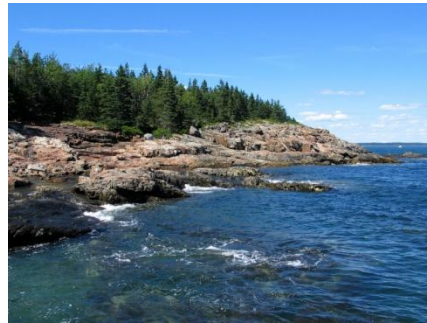
Other Coastal/Marine Habitat Classifications

- * TNC National Habitat Classifications
- * NOAA Coastal Change Analysis Land Cover Classification Structure
- * Gulf of Maine Habitat Primer
- * DEP Coastal Wetlands Types
- * NOAA Coastal and Marine Ecological Classification Standard
- * Others....

Northeast Habitat Classification

DRAFT (Sept. 29)

Coastal and Marine Habitats



Freshwater Marsh

- Coastal Plain Pond
- Emergent
- Managed
- Shrub marsh

Saltmarsh

- Coastal
- Estuary
- Plain

Coastal Scrub-Herb

- Coastal grassland & Shrubland
 - Dune
 - Beach

Intertidal (nonvascular)

- Mudflat
- Rocky
- Sand flat

Tidal/Marine

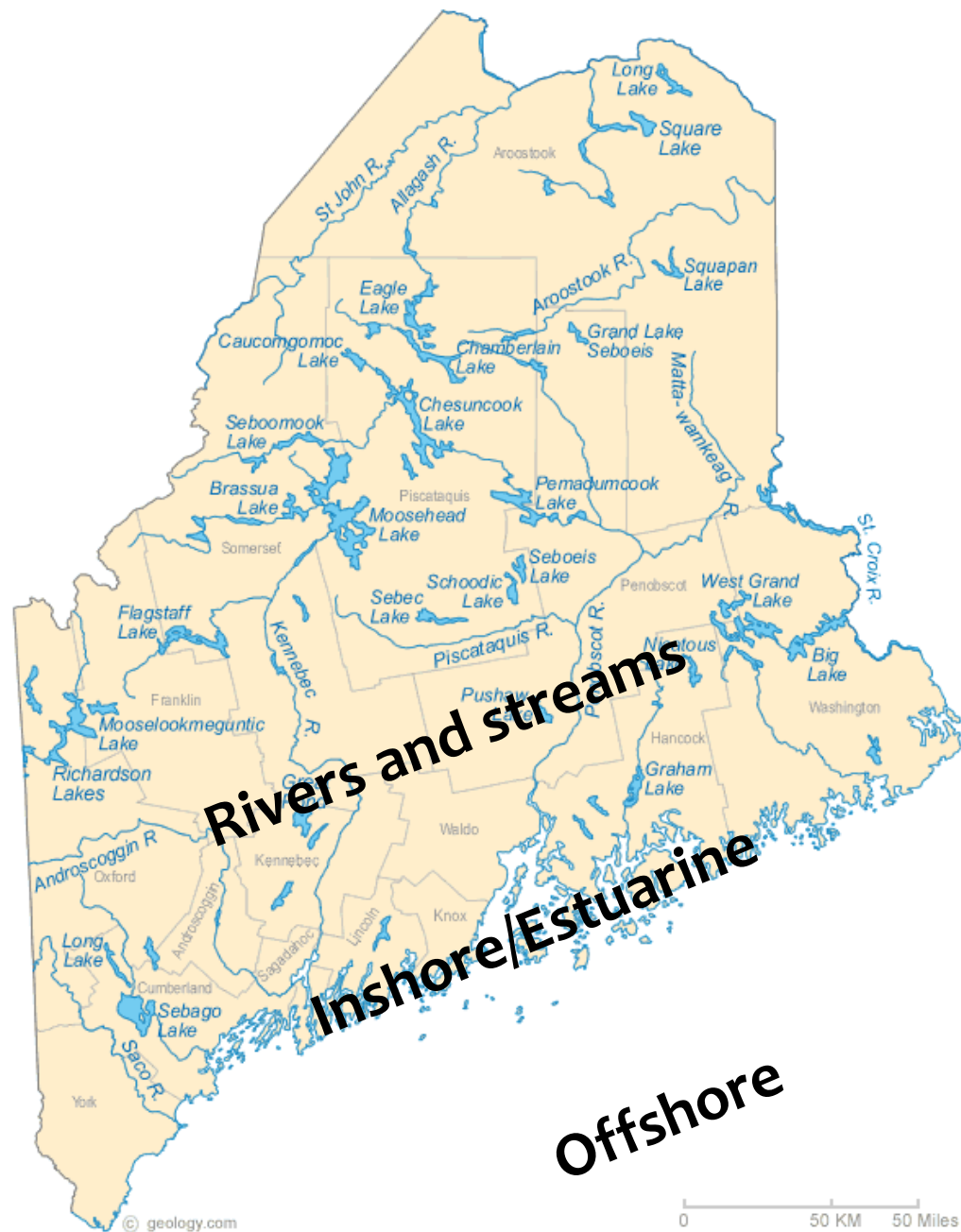
- Estuaries & bays
- Headwaters
- Small/med river
- Tidal large river
- Open water

Biological habitat?

Marine sub-classifications?

Coastal and Marine Ecological Classification Standard

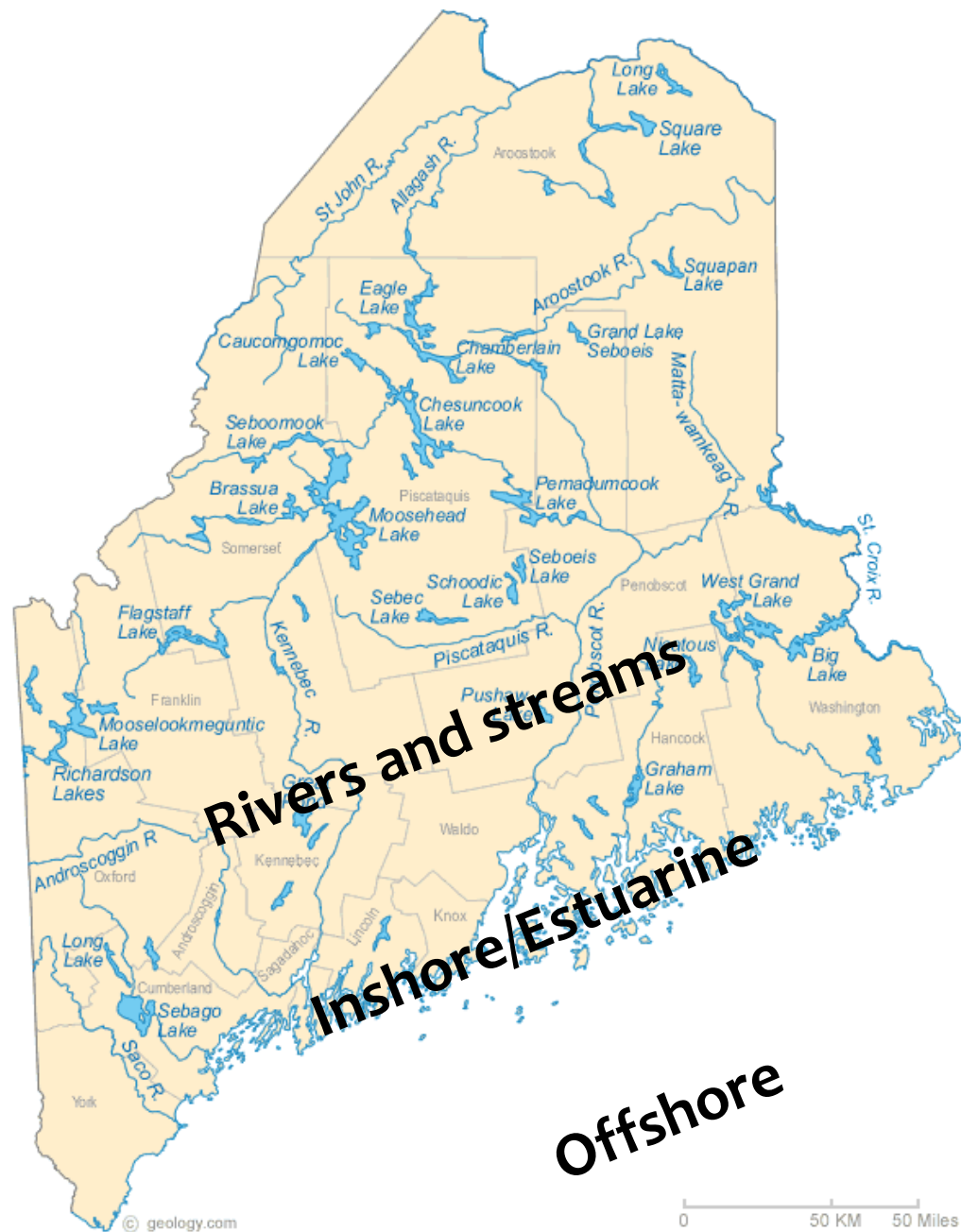




Alternative Classification Scheme

1. Salinity

1. Low - Rivers and streams
2. Medium – Inshore/Estuarine
3. High – Offshore



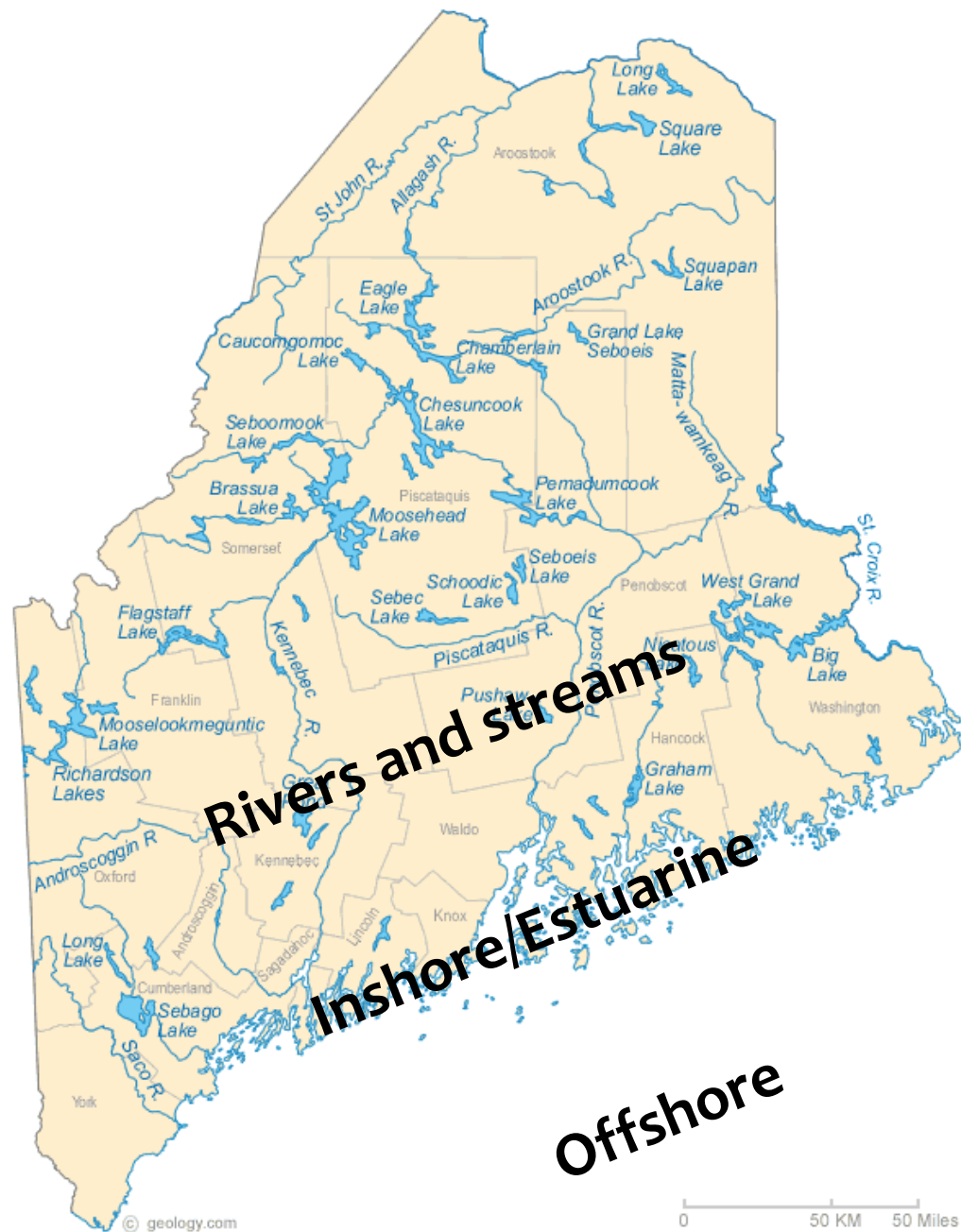
Alternative Classification Scheme

1. Salinity

1. Low - Rivers and streams
2. Medium – Inshore/Estuarine
3. High – Offshore

2. Physical Habitat

1. Benthic (substrate/seafloor)
 1. Rocky
 2. Muddy
 3. Sandy
2. Pelagic (open water)



Alternative Classification Scheme

1. Salinity

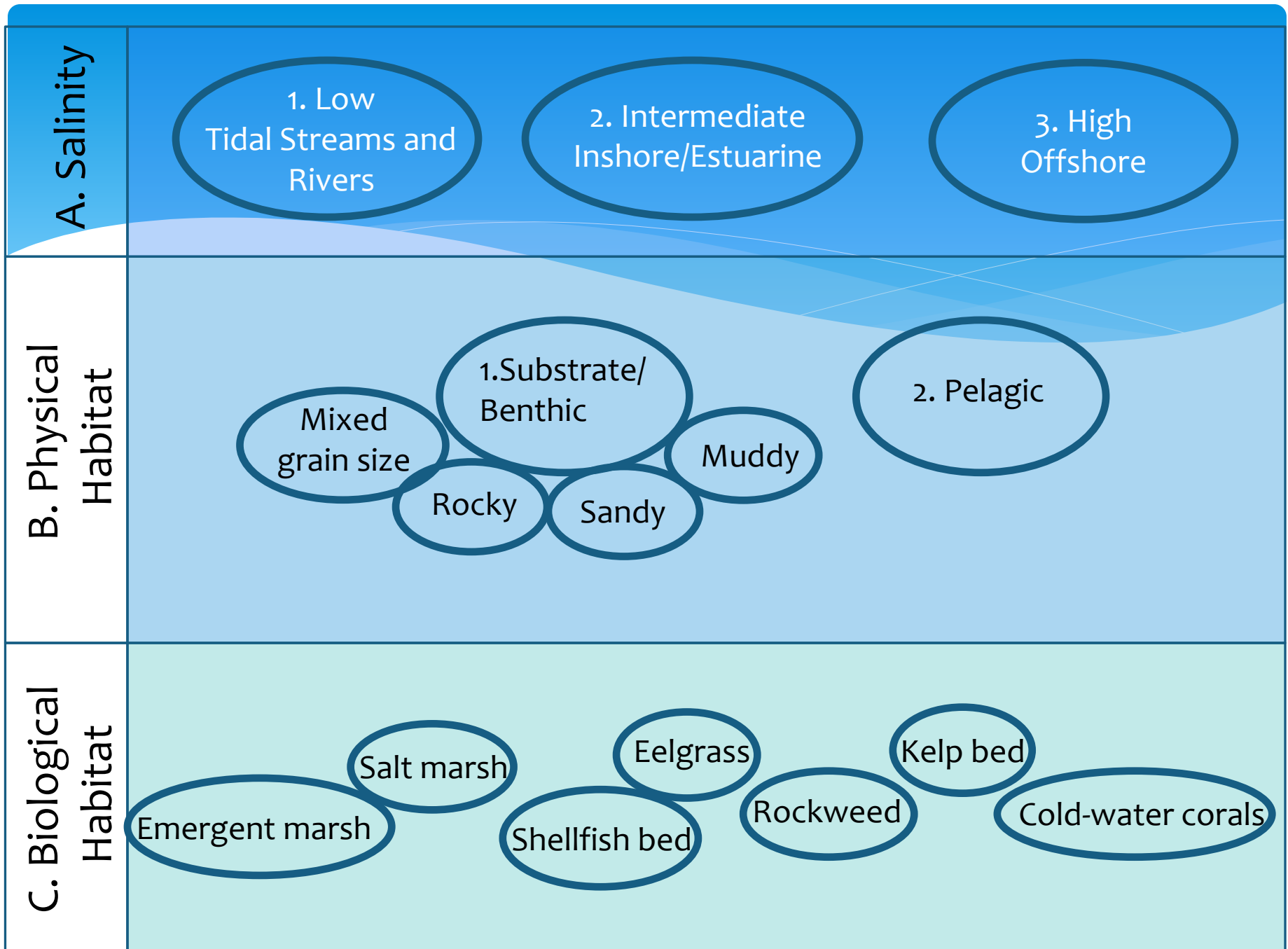
1. Low - Rivers and streams
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2. Physical Habitat

1. Benthic (substrate/seafloor)
 1. Rocky
 2. Muddy
 3. Sandy
2. Pelagic (open water)

3. Biological Habitat

1. Emergent marsh
2. Salt marsh
3. Rockweed
4. Eelgrass bed
5. Kelp bed
6. Shellfish bed
7. Cold-water corals



Intertidal mudflat



Open Water



What is an Ideal Classification System?

- * Describes the spatial heterogeneity of natural community types
- * Logically linked to underlying mechanisms that structure communities
- * Broadly applicable and consistent (i.e. can be tested/validated)
- * Incorporates first order classes that, with modifiers/variables, can become increasingly specific
- * Specifically designed for identification of natural communities or more discrete ecological features for the purpose of conservation

Questions and Discussion

- * SGCN marine and coastal species
- * Coastal and marine habitat types

